

Notice of Allowability

Application No.

10/657,199

Examiner

Susan Hanley

Applicant(s)

CHEN ET AL.

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/15/07.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070315.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

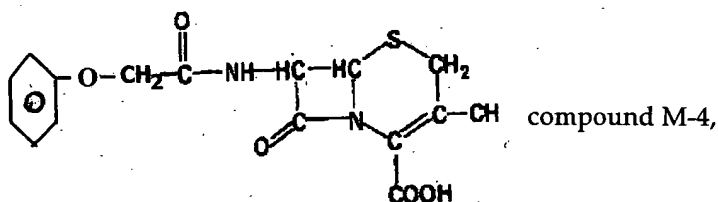
Authorization for this examiner's amendment was given in a telephone interview with Anthony King on 3/15/07.

The application has been amended as follows:

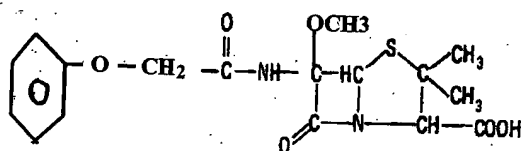
IN THE CLAIMS:

Claims 1-4 have been replaced by the following:

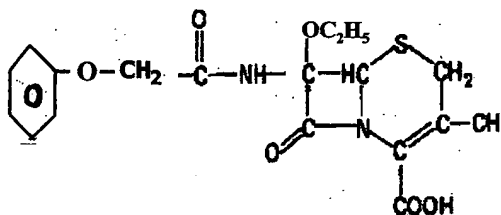
- 1. A method for producing a novel β -lactam antibiotic selected from the group consisting of:



compound M-4,



compound A-3-2, and



compound 3-3-A-2;

from a protoplast fusion strain CCRC930060, comprising the steps of:

- (a) culturing the protoplast fusion strain CCRC930060 which is obtained from the protoplast fusion of *Penicillium chrysogenum* (ATCC 48271) and *Cephalosporium acremonium* (ATCC 48272) with the following medium for fermentative culture:

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<u>Component</u>	<u>Amount (weight %)</u>
Sucrose	12
Lard	0.1
Ammonium sulfate	2
Di-potassium hydrogen phosphate	0.05
Sodium citrate	0.4
Phenoxyacetic acid	1.12

to obtain a liquid culture suspension;

(b) processing said liquid culture suspension of step (a) to obtain a ferment filtrate which is then lyophilized to provide a powder, added with a volume of acetone, stirred at room temperature for extraction, and filtered;

(c) collecting the filtrate obtained in step (b) and concentrating the filtrate by decompression;

(d) filtering the concentrate of step (c) by a filter membrane of 0.22 μm to provide a product;

(e) analyzing the product of step (d) by preparation type HPLC using a mobile phase to obtain an eluent having said antibiotic;

(f) isolating said antibiotic in the eluent obtained in step (e) by a bacteriostatic test and a pitting test; and

(g) concentrating the isolated eluent of step (f) to provide said antibiotic.

2. The method according to claim 1, wherein 1% methanol is used as the mobile phase of step (e) to obtain an eluent having compound M-4.

3. The method according to claim 1, wherein 30% acetonitrile is as used the mobile phase of step (e) to provide a first eluent comprising compound A-3-2 which is collected, concentrated and then subjected to preparation type HPLC using 30% methanol as the mobile phase to obtain a second eluent comprising compound A-3-2 which then undergoes step (f) of claim 1.

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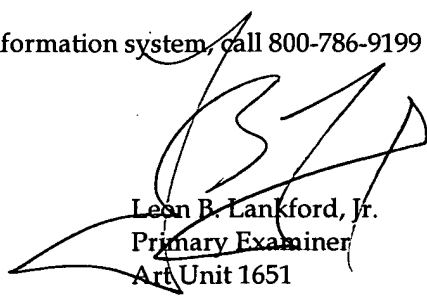
4. The method according to claim 1, wherein in step (b), the lyophilized powder of the ferment filtrate is added with a volume comprising 70% acetone and 30% methanol, stirred at room temperature for extraction, and filtered; and in step (e) wherein 30% methanol is as used the mobile phase for a first preparation type HPLC to provide a first eluent comprising compound 3-3-A-2 which is collected, concentrated, and then subjected to preparation type HPLC using 10% methanol as the mobile phase to obtain a second eluent comprising compound 3-3-A-2 which then undergoes step (f) of claim 1. --

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Hanley whose telephone number is 571-272-2508. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Susan Hanley
Patent Examiner
AU 1651



Leon B. Lankford, Jr.
Primary Examiner
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